## **CLAIMS**

- In a particulate drug delivery composition for intranasal delivery comprising a plurality of bioadhesive microspheres and a systemically active drug, the improvement comprising that at least 90 wt % of the microspheres of the composition have a diameter of between 0.1  $\mu$ m and 10  $\mu$ m.
- 2. A drug delivery composition according to Claim 1 wherein the microspheres are prepared from a material that will gel in contact with the mucosal surface.

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A drug delivery composition according to Claim 1 or 2 wherein the microspheres comprise starch, starch derivatives, gelatin, albumin, collagen, dextran or dextran derivatives.

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A drug delivery composition according to Claim 3 wherein the microspheres are starch microspheres.

5. 20 microsphere material is cross-linked.

A drug delivery composition\according to Claim 1 wherein the

A drug delivery composition according to Claim 1 wherein the microspheres have been stabilised by heat treatment.

- 25 A drug delivery composition according to Claim 1 additionally 7. comprising an absorption enhancer.
  - A drug delivery composition according to Claim 7 wherein the absorption enhancer is a surfactant, a lysophosphatidylcholine lysophosphatidylglycerol.

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- 9. A drug delivery composition according to Claim 1 wherein the drug is a biologically active peptide.
- 10. A drug delivery composition according to Claim 9 wherein the peptide5 is insulin or calcitonin.
  - 11. A system for intranasal drug delivery comprising a drug delivery composition according to Claim 1 and a container having an orifice through which the composition can be delivered to the nasal mucosa in a gas stream.
  - 12. A system according to Claim 11 wherein the system is such that, in use, the product of the flow rate and the square of the microsphere aerodynamic diameter is greater than 2000  $\mu$ m<sup>2</sup>.litres/min.
- 15 13. A method of delivering a drug to the nasal mucosa, comprising introducing a gas stream containing a composition according Claim 1 into the nose.
- 14. A method of treating diabetes comprising introducing a gas stream containing a composition according to Claim 1 wherein the systemically active drug is insulin into the nose.

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